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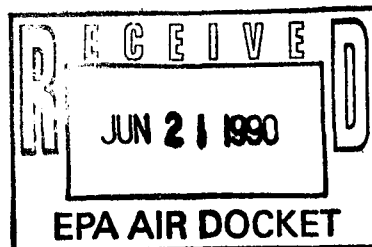
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WESTERN PSYCHIATRIC INSTITUTE AND CLINIC

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June 14, 1990



To: AIR DOCKET
LE 131
US EPA
401 M St SW
Washington, DC 20460

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Herbert L Needleman

I submit the following comments on the Application for a Fuel Additive Waiver by the Ethyl Corporation of America to EPA.

In that appeal, Ethyl Corporation asserts that the addition of methylcyclopentadienyl manganese tricarbonyl (MMT) to gasoline as an octane booster "presents no risk to human health..." But the 15 page appendix to their waiver application that deals with health nowhere mentions the neurotoxic properties of manganese, nor does it attend to the extraordinary risks to the brain of alkyl manganese compounds. This document cannot be taken as a credible submission in support of this application. It is incomplete, biased and tendentious.

The exposure estimates in the document underestimate the risk. Ethyl claims that 99.9% of the MMT added to the fuel is converted to the inorganic form, and thereby dismisses the possibility of any health threat. But simple calculations show that little comfort can be taken from this statement.

- * Assuming the annual sales of gasoline in the US are 100 billion gallons
- * Assuming the addition of 31.2 mgm MMT per gallon of gasoline, as stated in the appeal
- * Assuming that 99.9% of the additive is converted to the inorganic form,

$100,000,000,000 \times 31.2 \times .01 = 30$ million grams, or 30,000 kg of alkyl Mn will be added to the US environment per year.

This is an unacceptable load of a known neurotoxin.

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The appeal presents no data on the neurotoxic potential of MMT. Not one statement about the effects of manganese on the control of movement, or on its relationship to Parkinson's disease is mentioned in the document. Ample documentation of manganese's neurotoxic effects exists in the open biomedical literature, but seems to have evaded the detection of Ethyl's proposal writers.

Ethyl Corporation's past behavior provides no confidence in their sense of public responsibility. In 1924, DuPont Corporation and General Motors created the Ethyl Corporation to market tetraethyl lead as a gasoline additive. Early in the manufacture of this compound, 39 of 49 workers were poisoned, 5 fatally. Frank Howard, a representative of the Ethyl Corporation, at a national conference convened to discuss the dangers of ethyl lead, called the discovery of this compound "an apparent gift of God." In the struggle to reduce lead in gasoline conducted in the 1970's and early 80's, Ethyl Corporation has at every step, in every venue, worked to obscure the scientific understanding of lead's hazards, and to retard the pace of removing lead from fuel. This was done in the face of an overwhelming amount of data from investigators around the world on lead's effects on the central nervous system. This new appeal by Ethyl, flying in the face of facts and simple arithmetic, has a well established tradition.

Lead has been taken out of gasoline; blood lead levels in children, pregnant women, and newborn infants have declined in parallel with the decline in lead emissions. This is one of the public health triumphs of the past decade.

Ever resourceful, Ethyl corporation now seeks to reenter the scene, and replace lead with another neurotoxin. They reiterate the claim, made 65 years ago for their other product, that it is harmless and a boon to the environment and economy, perhaps another "gift of God". This time, they have earned the abiding skepticism of the public. Alkyl manganese, a known neurotoxin, has no place in the environment of Americans.

"timeo Danaos et dono ferentis"

Vergil